

## REMARKS/ARGUMENTS

### 35 USC § 102

**Claims 13-20** were rejected under 35 USC § 102 as being inherently anticipated by Miljkovic (U.S. Pat. No. 6,080,425). The applicant respectfully disagrees for various reasons. Nevertheless, *claims 13-20 were canceled* and new claims 21-30 were added.

With respect to the alleged inherency of the claimed method in light of the '425 patent, it appears that the Office relies on hindsight rather than on a factual basis for such an argument. The fact that a certain result or characteristic *may occur or be present* in the prior art *is not sufficient* to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence *'must make clear that the missing descriptive matter is necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, *may not be established by probabilities or possibilities*. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

### *Extrinsic Evidence*

(I) A Medline search using the keywords "boron" and "collagenase" *fails to produce a single reference* (published before the filing date) that links boron with collagenase inhibition. In a reference published after the filing date, Nzietchueng et al. report that "...*boron enhanced the trypsin-like, collagenase, and cathepsin D activities...*".

(II) A further Medline search using the keywords "boron" and "skin" results in 156 hits, however, *all of the so found references are dealing with neutron capture*, which is evident if the keyword "neutron" is used as an exclusion term. Remarkably, the *keywords "boron" and "wrinkle" fail to produce a single reference*.

(III) The *ligands per se* in the compounds of the claimed invention are *demonstrated to have an anti-wrinkle effect*. For example, where the ligand comprises a carbohydrate, Robert

et al report that "...treatment with...*polysaccharide* preparation can slow down human skin ageing and even can *reverse age-dependent skin alterations*..." (*Pathol. Biol.* (Paris). 2003; 51(10):586-90). Similarly, VanScott and Yu teach that *sugars and amino acids* "...increase skin thickness... [and]...*improve wrinkles and photoaged skin*..." (*Skinmed.* 2002; 1(2):117-22; quiz 125-6). Fitzpatrick and Rostan further report that a topical "...formulation of *vitamin C* results in clinically *visible and statistically significant improvement in wrinkling* when used topically for 12 weeks..." (*Dermatol Surg.* 2002 Mar;28(3):231-6).

(IV) Before the filing date of the present application, *use of Boron complexes in the field enzyme inhibition, and in the field of cosmetics was not known*. This is clearly evidenced by a Medline search using the keywords "boron complex" and "(enzyme OR inhibit\$)"/"topical".

### *Conclusion*

The extrinsic evidence on which the Office must rely to establish inherency (rather than on hindsight or mere speculation) indicates that boron has an enhancing effect on collagenase activity. Furthermore, not boron complexes with ligands, but only ligands *per se* are known to exhibit an anti-wrinkle effect. In view of the above, it should be apparent that the extrinsic evidence fails to make clear that the missing descriptive matter (*i.e.*, the inhibition of collagenase by a boron-ligand complex) is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.

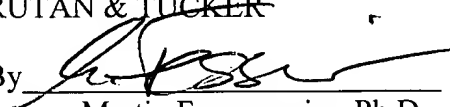
On the contrary, what is necessarily present in the extrinsic evidence is the fact that boron increases collagenase activity rather than inhibits collagenase, and that ligands *per se* improve the skin appearance. Therefore, the only recognition and motivation for a person of ordinary skill in the art is to omit boron and to improve on the ligands without boron.

In view of the present amendments and arguments, the applicant believes that all claims are now in condition for allowance. Therefore, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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